Goal-Directed Design: Research

Understanding the Problem

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Contextual Design of Interactive Systems

medieninformatik

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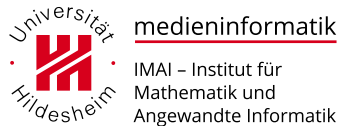
1 Introduction

Assignment 3.1: Pruitt & Grudin, Chapman & Milham

- Required reading for week 2
    - Pruitt, John, and Jonathan Grudin. "Personas: practice and theory." In Proceedings of the 2003 conference on Designing for user experiences, ACM, 2003.
    - Chapman, Christopher N., and Russell P. Milham. "The personas' new clothes: methodological and practical arguments against a popular method." In Proceedings of the human factors and ergonomics society annual meeting, vol. 50, no. 5, pp. 634-636. Sage Publications: Los Angeles, CA, 2006.

- The texts will be discussed in the tutorial 30.04.2019

- Course readings can be downloaded in the learnweb

- Every text has a wiki-page in the learnweb
    - Use it to describe the text
    - Use it to link the text to the course

- Results of the discussion may also be written up

Success Criteria
The outcome of any design effort ultimately must be judged by how successfully it meets the needs of both the product's users and the organization that commissioned it. No matter how skillful or creative the designer, if she does not have clear and detailed knowledge of the users she is designing for, the problem's constraints, and the business or organizational goals that are driving the design, she will have little chance of success (Cooper et al., 2014).

- Insight into these topics cannot easily be achieved by sifting through the numbers and graphs from *quantitative* studies such as market surveys

- Rather, this kind of behavioral and organizational knowledge can best be gathered via *qualitative* research techniques

Benefits of Qualitative Methods
Qualitative methods help us Understanding

- Behaviors, attitudes, and aptitudes of potential and existing product users

- Technical, business, and environmental contexts—the domain—of the product to be designed

- Vocabulary and other social aspects of the domain in question

They help the design team

- It gives the design team credibility and authority, because design decisions can be traced to research results

- It gives the team a common understanding of domain issues and user concerns

- Empowers management to make more informed decisions about product design issues that would otherwise be based on guesswork

Strengths & Limitations of Quantitative Methods

- Marketing research helps determining what motivates people to buy

- Powerful tools for doing so is market segmentation
  - Data from focus groups and market surveys is used to group potential customers by demographic criteria such as age, gender, amount of education, zip code
  - Helps determine what types of consumers will be most receptive to a particular product or marketing message

- However, understanding if somebody wants to buy something is not the same thing as understanding what he or she might want to do with it after buying it

- Market segmentation is a great tool for identifying and quantifying a market opportunity, but it's ineffective for defining a product that will capitalize on that opportunity

- Similarly, quantitative measures such as web analytics and other attempts to numerically describe human behavior may certainly provide insightful answers to the what of the equation simply raise more questions than it answers

Directing Design Research with Quantitative Methods

- Market-modeling techniques can accurately forecast marketplace acceptance of products and services

- Powerful tools for convincing executives to build a product

- Because market research can identify and quantify the business opportunity, it is often the necessary starting point for funding a design initiative

- Designers planning to interview and observe users can refer to market research (when it exists) to help select interview targets
  - Particularly in the case of consumer products and services, demographic attributes such as lifestyle choice and stage of life more strongly influence user behaviors

- Similarly, web and other usage data analytics are an excellent way to identify design problems

- it will likely take qualitative research to help determine the root cause

- Analytics are useful only when you have an existing product to run them on

User research can inform market research

- A type of information that qualitative research can't get you by itself: market sizing of the behavioral models

- This is an ideal place to employ quantitative techniques (such as surveys)

- Once your users have been successfully represented by behavioral models, you can construct a survey

- It will distinguish these different user types and capture traditional market demographic data that can then be correlated to the behavioral data

- This can help determine which user types should be prioritized when designing features and the overall product experience

Qualitative and Quantitative Research
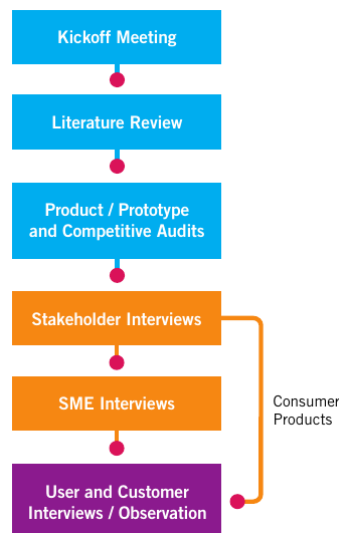

([Cooper et al., 2014](#))

2 Goal-Directed Design Research

Qualitative Methods used

- Kickoff meeting
- Literature review
- Product/prototype and competitive audits
- Stakeholder interviews
- Subject matter expert (SME) interviews
- User and customer interviews
- User observation/ethnographic field studies

([Cooper et al., 2014](#)).

Kickoff Meeting
Involving the most important shareholders

- What is the product?
- Who will/does use it?
- What do your users need most?
- Which customers and users are the most important to the business?
- What challenges do the design team and the business face moving forward?
- Who do you see as your biggest competitors? Why?
- What internal and external literature should we look at to familiarize ourselves with the product and/or business and technical domain?

Literature Review

- **Internal documents** including product marketing plans, brand strategy, market research studies, user surveys, technology specifications and white papers, competitive research, usability studies and metrics, customer support data such as call center statistics or transcripts, and user forum archives

- **Industry reports** such as business and technical journal articles
- **Web searches** for related and competing products, news items, independent user forums, blog posts, and social media discussion topics

Product/Prototype and Competitive Audits

- Examine any existing version or prototype of the product, as well as its chief competitors
- Doing so gives the design team a sense of the state of the art and provides fuel for questions during these interviews
- The design team should engage in an informal or expert review of both the current design (if any) and competitive product interfaces
    - Compare each against interaction and visual design principles
- Familiarizes the team with the strengths and limitations of what is currently available to users and provides a general idea of the product's current functional scope

Stakeholder Interviews

- Start with an understanding of the business and technical context surrounding the product
- Almost always, a product is being (re-) designed to achieve one or several specific business outcomes
- It is the designers' obligation to develop solutions without losing sight of these business goals
- Therefore, it is critical that the design team begin its work by understanding the opportunities and constraints that are behind the design brief
- For a designer to craft an appropriate solution, he must understand the capabilities and limitations of the "materials" that will be used to construct the product, whether they be lines of code or extruded plastic
- Best way to begin this understanding is by talking to the people responsible for managing and building the product

Stakeholder Interviews II

- A stakeholder is anyone with authority and/or responsibility for the product being designed
- Usually key members of the organization commissioning the design work
    - Executives, managers, and representative contributors from development, sales, product management, marketing, customer support, design, and usability
- May also include similar people from other organizations in business partnerships with the commissioning organization
- Interviews with stakeholders should occur before user research begins
    - often informs how user research is conducted
- Most effective to interview each stakeholder in isolation, rather than in a larger group
- Interviews need not last longer than about an hour

Stakeholder Interviews: Information I

- Preliminary product vision
    - Each business department might have a slightly different and slightly incomplete perspective on the product to be designed
    - Part of the design approach therefore must involve harmonizing these perspectives with those of users and customers
    - Serious disconnect in vision among stakeholders are a yellow flag to monitor and follow up on early in the process
- Budget and schedule
    - Reality check on the scope of the design effort
    - Give management a decision point if user research indicates that a greater (or lesser) scope is required

Stakeholder Interviews: Information II

- Technical constraints and opportunities
  - Firm understanding of what is technically feasible given budget, time, and technology constraints

- Business drivers
  - Important to understand what the business is trying to accomplish
  - Design must, as much as possible, create a win-win situation for users, customers, and providers

- Stakeholders' perceptions of their users
  - Stakeholders who have relationships with users (such as customer support representatives) may have important insights that will help you formulate your user research plan
  - You may also find that there are significant disconnects between some stakeholders' perceptions of their users

Stakeholder Interviews: Consolidation

- Understanding these issues and their impact on design solutions helps you better develop a successful product

- Discussing these topics is also important to developing a common language and understanding among the design, management, and engineering teams

- Keep in mind that although perspectives gathered from stakeholders are obviously important, you should not accept them at face value

Subject Matter Expert (SME) Interviews

- Identify and meet with several subject matter experts (SMEs)
  - Authorities on the domain within which the product will operate

- Of critical importance in domains that are highly complex or very technical, or for which legal considerations exist

- Many SMEs were users of the product or its predecessors at one time and may now be trainers, managers, or consultants

- Experts, not stakeholders

- SMEs can provide valuable perspectives on a product and its users, but SMEs represent a somewhat skewed perspective because often, by necessity, they are invested in their understanding of the product/domain as it currently exists

Subject Matter Expert (SME) Interviews II

- SMEs are often expert users
  - may have grown accustomed to current interactions
  - may also lean toward expert controls
  - often not current users of the product and may have a management perspective

- SMEs are knowledgeable, but they aren't designers
  - most useful pieces of information Are the causative problems that lead to proposed solutions

- SMEs are necessary in complex or specialized domains
  - you will likely need some guidance from SMEs, unless you are one yourself
  - gather information on industry best practices and complex regulations

- You will want access to SMEs throughout the design process
  - If your product domain requires the use of SMEs, you will need to bring them in at different stages of he design to help perform reality checks on design details

User Interviews

- Users of a product should be the main focus of the design effort

- They are the people who personally use the product to accomplish a goal

- If you are redesigning or refining an existing product, it is important to speak to both current and potential users

- This illuminates the effect that experience with the current version of a product may have on how the user behaves and thinks about things

User Interviews: What to achieve

- The context of how the product (or analogous system, if no current product exists) fits into their lives or work flow

- Domain knowledge from a user perspective: What do users need to know to do their jobs?

- Current tasks and activities: both those the current product is required to accomplish and those it doesn't support

- Goals and motivations for using their product

- Mental model: how users think about their jobs and activities, as well as what expectations users have about the product

- Problems and frustrations with current products (or an analogous system)

User Observation

- Most people are incapable of accurately assessing their own behaviors, especially when these behaviors are removed from the context of people's activities

- Out of fear of seeming dumb, incompetent, or impolite, many people may avoid talking about software behaviors that they find problematic or incomprehensible

- Interviews performed outside the context of the situations the designer hopes to understand will yield less-complete and less-accurate data
    - You can talk to users about how they think they behave, or you can observe their behavior first-hand
    - The latter route provides superior results

- Perhaps the most effective technique for gathering qualitative user data combines interviewing and observation, allowing to ask clarifying questions and direct inquiries about situations and behaviors in real time
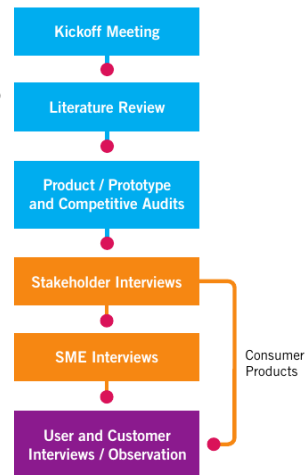
User Observation

- One can use technological aides such as audio or video recorders to capture what users say and do

- Interviewers must take care not to make these technologies too obtrusive; otherwise, the users will be distracted and behave differently than they would when not being recorded

- Often notebook and camera enough

- Don't bring out the camera until you feel that you have established a good rapport with the interview subject

- Then use it to capture elements and artifacts in the environment that are difficult to jot down in notes

- Video, when used with care, can sometimes be a powerful rhetorical tool for achieving stakeholder buy-in to contentious or surprising research results

- Video may also prove useful in situations where note-taking is difficult, such as in a moving car

Assignment 5.1: Learnweb Replacement

- Form groups of 3-6

- Plan the Kickoff-Meeting for a project to replace Learnweb

- Product:
    - Who should be involved in the Kickoff? Why?
    - Take a first shot at the different activities
        * How to proceed?
        * Who are users?

- Present your project in the course

Diagram: Cooper et al. (2014).

3 Ethnographic Interviews

Combining Observations and Interviews

- Combination of observation and one-on-one interviews is the most effective and efficient tool for gathering qualitative data about users and their goals

- The technique of ethnographic interviews is a combination of immersive observation and directed interview techniques

- Holtzblatt and Beyer (2016) pioneered an ethnographic interviewing technique they call contextual inquiry

- Contextual inquiry methods closely parallel the methods described here

Contextual Inquiry

- Master-apprentice model of learning: observing and asking questions as if the user is the master craftsman, and the interviewer the apprentice

- Four basic principles of engaging in ethnographic interviews:
    - Context
        * Important to interact with and observe the user in her normal work environment, or whatever physical context is appropriate for the product
    - Partnership
        * The interview and observation should take the tone of a collaborative exploration with the user, alternating between observation of work and discussion of its structure and details
    - Interpretation
        * Reading between the lines of facts gathered about users' behaviors, their environment, and what they say
    - Focus
        * Rather than coming to interviews with a set questionnaire or letting the interview wander aimlessly, direct the interview so as to capture data relevant to design issues

Context

- Do it in the context of the task

- Go to the workplace and see the work as it unfolds

- Ask participants to think aloud

- People summarize, but we want specific details

- Keep it concrete when people start to abstract

- "Do you have one? May I see it?"

Focus

- Choose a Focus

- Focus defines the point of view

- Clear focus steers the conversation
    - Everyone in the team should have an entering focus

- Focus lets the interviewer see more, reveals detail

- Focus may conceal the unexpected
    - Focus on one, and lose the other

- Start with a focus and then expand

Focus

- Choose a Focus

- Nods
    - Question assumptions even if they match
    - "Do they really do that? Why would they do that?"

- What you do not know
    - Treat the enquiry as an opportunity to learn new stuff
    - Even if the participant is not knowledgeable, the extent of their knowledge / misinformation will be useful

Partnership

- Establish a Partnership

- Designer should create a partnership

- Alternate between watching and probing

- Questions lead to withdrawal and return

- Designer observes action that indicates something meaningful

- The designer asks about the action, and the pair withdraw from the task

- They discuss the question

- Then they return to the task

Interpretation

- Do interpretation as you go

- Instead of asking open ended questions. . .
    - "Do you have a strategy to start the day?"
    - "Not particularly."

- . . . give participants a starting point
    - "Do you check urgent messages first, no matter where they are from?
    - "Actually, things from my boss are the most important, because they are for me to do. Messages or emails may be for anybody." Participants fine-tune interpretations
    - Probe contradictions, don't make assumptions

Example

    Interviewer: "Could I see that again?"

    User: "What?"

    I: "What you just did with the box."

    U: "Oh, I'm just using it to position this text here. The box doesn't matter."

    I: "But why are you using a box?"

    U: "See, I want the white space to be exactly the same height as the lower-case letters in this line of text. So I draw the box to get the height." (He repeats the actions to illustrate, going more slowly.) "Then I drag it down, and it shows where the next line of text should go."

    I: "Why do you want to get the spacing exact?"

    U: "It's to make the appearance of the page more even. You want all the lines to have some regular relationship the other things on the page. It's always hard to know if it really makes any difference—you just hope the overall appearance will be cleaner if you get things like this right."

Master/Apprentice

- The "master/apprentice" relationship is at the heart of contextual inquiry

- In a master/apprentice relationship:
  - The master is doing stuff
  - The master explains what they're doing
  - The apprentice asks clarification questions
  - The master answers

- Limits of the metaphor
  - The goal is not to learn to do the task
  - Instead, the goal is to learn how the participant does the task in order to learn how to support it
  - And for the researcher to enlist the participant's active assistance in understanding the task

Stages of Contextual Inquiry
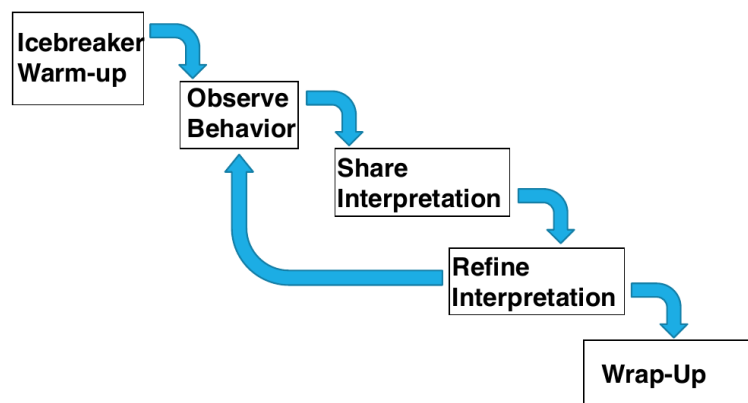
Dell (2018)

GDD Changes

- Shorten the interview process.
  - Interviews as short as one hour can be sufficient to gather the necessary user data, provided that a sufficient number of interviews (about six well-selected users for each hypothesized role or type) are scheduled

- Use smaller design teams
  - Conduct interviews sequentially with the same designers in each interview
  - The entire team interacts with all the interviewed users directly

- Identify goals first

- – Contextual inquiry feeds a design process that is fundamentally task-focused
  - – We propose that ethnographic interviews identify and prioritize user goals before determining the tasks
- Look beyond business contexts
  - – Ethnographic interviews are also possible in consumer domains, although the focus of questioning is somewhat different

3.1 Preparing

Identifying candidates

- Critical that the designers identify an appropriately diverse sample of users and user types when planning a series of interviews

- Based on information gleaned from stakeholders, SMEs, and literature reviews, designers need to create a hypothesis that serves as a starting point in determining what sorts of users and potential users to interview

- We label this starting point the persona hypothesis

- The persona hypothesis should be based on likely behavior patterns and the factors that differentiate these patterns, not purely on demographics

- Business users are often quite different from consumer users in their behavior patterns and motivations, and different techniques are used to build the persona hypothesis in each case

- The persona hypothesis is the basis for initial interview planning; as interviews proceed, new interviews may be required if the data indicates the existence of user types not originally identified

Business vs. Consumer Hypothesis

- For business products, roles or common sets of tasks and information needs related to distinct classes of users provide an important initial organizing principle

- In business and technical contexts, roles often map roughly to job descriptions

- Therefore, it is relatively easy to get a reasonable first cut of user types to interview by understanding the kinds of jobs held by users (or potential users) of the system

- Unlike business users, consumers don't have concrete job descriptions, and their use of products may cross multiple contexts

- Therefore, it often the case that you will see the most significant patterns emerge from users' attitudes and aptitudes, lifestyle choices, or stage of life

Behavioral and demographic variables

- A persona hypothesis should also be based on variables that help differentiate between various kinds of users based on their needs and behaviors

- Often the most useful way to distinguish between different types of users

- can be difficult to fully anticipate without research, but they often become the basis of the persona hypothesis for consumer products

- Although consumer user types can often be roughly defined by the combination of ehavioral variables they map to, behavioral variables are also important for identifying types of business and technical users

- People within a single business-role definition may have different needs and motivations

- Behavioral variables can capture this, although often not until user data has been gathered

- When planning your interviews, you can use market research to identify ages, locations, gender, and incomes of the target markets for the product

- Interviewees should be distributed across these demographic ranges

Technical and Domain Expertise

- One important type of behavioral distinction is the difference between technical expertise (knowledge of digital technology) and domain expertise (knowledge of a specialized subject area pertaining to a product)

- Different users will have varying amounts of technical expertise

- Similarly, some users of a product may be less expert in their knowledge of the product's domain

- Depending on who the design target of the product is, domain support may be a necessary part of the product's design, as well as technical ease of use

- If naïve users are part of the target market for a domain-specific product, care must be taken to support domain-naïve behaviors

Environmental considerations

- A final consideration, especially in the case of business products, is the cultural differences between organizations in which the users are employed

- At small companies, for example, workers tend to have a broader set of responsibilities and more interpersonal contact

- Huge companies often have multiple layers of bureaucracy, and their workers tend to be highly specialized

- Some examples of these environmental variables:
    - Company size (from small to multinational)
    - Company location (North America, Europe, Asia, and so on)
    - Industry/sector (electronics manufacturing, consumer packaged goods,...)
    - IT presence (from ad hoc to draconian)
    - Security level (from lax to tight)

Planning

- After you have created a persona hypothesis, you need to create an interview plan that can be communicated to the person in charge of coordinating and scheduling the interviews

- Each presumed behavioral pattern requires about a half-dozen interviews

- Each identified role, behavioral variable, demographic variable, and environmental variable identified in the persona hypothesis should be explored in four to six interviews

- However, these interviews can overlap

- Consumer products typically have much more variation in behavior, so more interviews typically are required to really delineate the differences

- A good rule of thumb is to double the numbers just discussed: 8 to 12 interviews for each user type postulated in the persona hypothesis.

- Something to keep in mind with consumer products is that lifestyle choices and life stages (single, married, young children, older children, empty nest) can multiply the interviews for certain kinds of products

3.2 Conducting

Interview teams and timing

- Two designers per interview

- The moderator drives the interview and takes light notes, and the facilitator takes detailed notes and looks for any holes in the questioning

- These roles can switch halfway through the interview

- One hour per user interviewed is often sufficient, except in the case of complex domains such as medical, scientific, and financial services

- Be sure to budget travel time between interview sites

- This is especially true of consumer interviews in residential neighborhoods, or interviews that involve "shadowing" users as they interact with a (usually mobile) product while moving from place to place

- Try to limit interviews to six per day

Phases of ethnographic interviews

- Early interviews
  - Exploratory in nature and focus on gathering domain knowledge from the user's point of view
  - Broad, open-ended questions are common

- Middle interviews
  - designers begin to see patterns of use and ask open-ended and clarifying questions to help connect the dots
  - Questions in general more focused on domain specifics

- Late interviews
  - confirm previously observed patterns, further clarifying user roles and behaviors and making fine adjustments to assumptions about task and information needs
  - More closed-ended questions are used, tying up loose ends in the data

Basic methods

- Interview where the interaction happens.

- Avoid a fixed set of questions.

- Assume the role of an apprentice, not an expert.

- Use open-ended and closed-ended questions to direct the discussion.

- Focus on goals first and tasks second.

- Avoid making the user a designer.

- Avoid discussing technology.

- Encourage storytelling.

- Ask for a show-and-tell.

- Avoid leading questions.

Interview where the interaction happens

- Following the first principle of contextual inquiry, it is of critical importance that subjects be interviewed in the places where they actually use the products

- Not only does this allow the interviewers to witness the product being used, but it also gives the interview team access to the environment in which the interaction occurs

- Observe the environment closely: It is likely to be crawling with clues about tasks the interviewee might not have mentioned

- Notice, for example, the kind of information he needs (papers on his desk or adhesive notes on his screen border), inadequate systems (cheat sheets and user manuals), the frequency and priority of tasks (inbox and outbox), and the kind of work flows he follows (memos, charts, calendars)

- Don't snoop without permission, but if you see something that looks interesting, ask your interviewee to discuss it

Avoid a fixed set of questions

- If you approach ethnographic interviews with a fixed questionnaire, you can cause the interviewers to miss out on a wealth of valuable user data

- The entire premise of ethnographic interviews (and contextual inquiry) is that we as interviewers don't know enough about the domain to presuppose the questions that need asking

- We must learn what is important from the people we talk to

- It's certainly useful to have types of questions in mind

- Depending on the domain, it may also be useful to have a standardized set of topics you want to be sure to cover during your interview

- This list of topics may evolve over the course of your interviews

Goal- and System-oriented Questions

- Here are some goal-oriented questions to consider:
    - Goals—What makes a good day? A bad day?
    - Opportunity—What activities currently waste your time?
    - Priorities—What is most important to you?
    - Information—What helps you make decisions?

- Another useful type of question is the system-oriented question:
    - Function—What are the most common things you do with the product?
    - Frequency—What parts of the product do you use most?
    - Preference—What are your favorite aspects of the product? What drives you crazy?
    - Failure—How do you work around problems?
    - Expertise—What shortcuts do you employ?

Work-flow and Attitude-oriented Questions

- For business products, work flow-oriented questions can be helpful:
    - Process—What did you do when you first came in today? What did you do after that?
    - Occurrence and recurrence—How often do you do this? What things do you do weekly or monthly, but not every day?
    - Exception—What constitutes a typical day? What would be an unusual event?

- To better understand user motivations, you can employ attitude-oriented questions:
    - Aspiration—What do you see yourself doing five years from now?
    - Avoidance—What would you prefer not to do? What do you procrastinate on?
    - Motivation—What do you enjoy most about your job (or lifestyle)? What do you always tackle first?

Apprenticeship

- Assume the role of an apprentice, not an expert

- During your interviews, you want to shed your expert designer or consultant cap and take on the role of the apprentice

- Your goal is to omnivorously and nonjudgmentally absorb everything your interviewees want to tell you and to encourage them to actively engage in detailed, thoughtful explanations

- Don't be afraid to ask naïve questions

- They put people at ease, and you'd be surprised how often seemingly silly questions end up pushing past assumptions and lead to real insights

- Be a sympathetic and receptive listener, and you'll find that people will be willing to share almost any kind of information with you

Direct the Discussion

- Open-ended questions
  - Encourage detailed responses
  - Use these types of questions to elicit more detail about a topic on which you need to gather more information
  - Typical open-ended questions begin with "Why," "How," or "What."

- Closed-ended questions
  - Encourage a brief response
  - Use closed-ended questions to shut down a line of inquiry or to get an interviewee back on track if he has begun to take the interview in an unproductive direction
  - Closed-ended questions generally expect a yes or no answer and typically begin with "Did you," "Do you," or "Would you."

Goals first and tasks second

- Unlike contextual inquiry and the majority of other qualitative research methods, the first priority of ethnographic interviewing is understanding the why of users

- You need to know what motivates the behaviors of individuals in different roles and how they hope to ultimately accomplish this goal, not the what of the tasks they perform

- Understanding the tasks is important, and the tasks must be recorded diligently

- But these tasks will ultimately be restructured to better match user goals in the final design

Avoid making the user a designer

- Guide the interviewee toward examining problems and away from expressing solutions

- Most of the time, those solutions reflect the interview subject's personal priorities

- Although they sound good to him, they tend to be shortsighted and idiosyncratic

- They also lack the balance and refinement that an interaction designer can bring to a solution based on research and experience

- That said, a proposed design solution can be a useful jumping-off point to discuss a user's goals and the problems he encounters with the current systems

- If a user blurts out an interesting idea, ask, "What problem would that solve for you?" or "Why would that be a good solution?"

Avoid discussing technology

- Just as you don't want to treat the user like a designer, you also don't want to treat him like a software engineer

- Discussing technology is meaningless without first understanding the purpose underlying any technical decisions

- In the case of technical or scientific products, where technology is always an issue, distinguish between domain-related technology and product-related technology, and steer away from the latter

- If an interview subject insists on talking about how the product should be implemented, return to his goals and motivations by asking, "How would that help you?"

Encourage storytelling

- Far more useful than asking users for design advice is encouraging them to tell specific stories about their experiences with a product

- Ask them how they use it, what they think of it, who else they interact with when using it, where they go with it, and so forth

- Detailed stories of this kind usually are the best way to understand how users relate to and interact with products

- Encourage stories that deal with typical cases and also more exceptional ones

Ask for a show-and-tell

- After you have a good idea of the flow and structure of a user's activities and interactions, and you have exhausted other questions, it is often useful to ask the interviewee for a show-and-tell or grand tour of artifacts related to the design problem

- These can be domain-related artifacts, software interfaces, paper systems, tours of the work environment, or ideally all of these. Be sure not to just record the artifacts themselves

- also pay attention to how the interviewee describes them

- Be sure to ask plenty of clarifying questions as well

- As you look to capture artifacts from the user's environment, be on particular lookout for signs of unmet needs or failures in the existing design

Avoid leading questions

- One important thing to avoid in interviews is the use of leading questions

- Just as in a courtroom, where lawyers can, by virtue of their authority, bias witnesses by suggesting answers to them, designers can inadvertently bias interview subjects by suggesting solutions or opinions about behaviors

- Here are some examples:
    - Would feature X help you?
    - You like X, don't you?
    - Do you think you'd use feature X if it were available?
    - Does X seem like a good idea to you?

3.3 Wrapping Up

After the interviews

- After each interview, teams compare notes and discuss any particularly interesting trends observed or specific points brought up in the most recent interview

- If they have the time, they should also look back at old notes to see whether unanswered questions from other interviews and research have been answered properly

- This information should be used to strategize about the approach to take in subsequent interviews

- After the interview process is finished, the design team should make a pass through all the notes, marking or highlighting trends and patterns in the data

- This is very useful for the next step of creating personas from the cumulative research

- If it is helpful, the team can create a binder of the notes, review any video recordings, and print artifact images to place in the binder or on a public surface, such as a wall, where they are all visible simultaneously

Assignment 5.2: Contextual Inquiry

- Form pairs of 2 who do not know each other well

- Use a system you are acquainted with and research your use of it
  - You actually have to do the task
  - You would actually do the task on campus on the device you're using

- The other person conducts a contextual inquiry on their task:
  - Focus. Decide what to pay attention to.
  - Partnership. You act as an interested learner, they act like a knowledgable expert.
  - Perform the inquiry. Ask probing questions. Have them teach you. Don't generate questions in advance; think of them as you observe. Focus questions on what you see happening in context.

- Document your findings

- Present your findings in the course

References

Literatur

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